AMENDMENTS TO THE CLAIMS

Please amend claims 1, 3, 4, 5, 6, 8, 9, 12 through14, 16, 18, 20, 21 and 23, and add claims 25 through 37, such that the claims of the application have the following formulations and statuses:

1. (Currently amended) A feedback oscillator device formed with an integrated circuit, said device comprising:

a semiconductor material substrate having a conductive ground plane on an equipotential major surface thereof on a side opposite an operating major surface thereof;

an amplifier formed at least in part in said semiconductor material having an input and an output provided at least in part on said semiconductor material substrate at said operating major surface thereof, said amplifier being capable of providing signals at said output thereof representative of signals occurring at said input thereof; and

a coupler having an oblong input conductor of a selected input length provided on said operating major surface of said semiconductor substrate electrically coupled at one end thereof to said amplifier output, and further having an oblong output conductor of a selected output length provided on said operating major surface of said semiconductor substrate closely adjacent to said input conductor with said input conductor over said input length being substantially parallel to said output conductor over said output length, said output conductor being electrically coupled at one end thereof to said amplifier input.

2. (Original) The device of claim 1 wherein said semiconductor material substrate is formed of gallium arsenide.

3. (Currently amended) The device of claim 1 further comprising a capacitor used in electrically coupling said coupler output conductor to said amplifier input

4. (Currently amended) The device of claim 1 further comprising a transfer system electrically coupling said coupler output conductor to said amplifier input, said transfer system having an oblong input conductor of a selected input length provided on said operating major surface of said semiconductor substrate electrically coupled substantially on said operating major surface at one end thereof to said coupler output conductor but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface, and having an oblong output conductor of a selected output length provided on said operating major surface of said semiconductor substrate electrically coupled substantially on said operating major surface at one end thereof to said amplifier input but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface.

5. (Currently amended) The device of claim 1 wherein said amplifier comprises a transistor formed at least in part in said semiconductor material and having first and second terminating regions and having a control region therein by which it is capable of being directed, by electrical energization thereof, to effectively provide a conductive path of a selected conductivity between said first and second terminating regions, a selected one of said first and second terminating regions being coupled to said amplifier output and said control region being coupled to said amplifier input.

6. (Currently amended) The device of claim 1 wherein said coupler input conductor has a continuous portion thereof on said operating major surface electrically coupled at one end thereof to said amplifier output and has at an opposite end thereof, and connected thereto, an input extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable, and wherein said coupler output conductor has a continuous portion thereof on said

operating major surface electrically coupled at one end thereof to said amplifier input and has at an opposite end thereof, and connected thereto, an output extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable.

7. (Original) The device of claim 3 wherein said capacitor is formed by a varactor having a conductor connected thereto through which a low frequency voltage can be further provided across a semiconductor material junction in said varactor.

8. (Currently amended) The device of claim 4 further comprising a capacitor used in electrically coupling said transfer system output conductor to said amplifier input.

9. (Currently amended) The device of claim 4 wherein said transfer system input conductor has a continuous portion thereof on said operating major surface electrically coupled at one end thereof to said coupler output conductor and has at an opposite end thereof, and connected thereto, an input extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable, and wherein said transfer system output conductor has a continuous portion thereof on said operating major surface electrically coupled at one end thereof to said amplifier input and has at an opposite end thereof, and connected thereto, an output extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable.

10. (Original) The device of claim 5 wherein said semiconductor material substrate is formed of gallium arsenide.

11. (Original) The device of claim 5 wherein said transistor is a high electron mobility transistor.

12. (Currently amended) The device of claim 5 wherein ~~said transistor where~~ that remaining one of said first and second terminating regions has an inductance coupled therefrom to said conductive ground plane.

13. (Currently amended) The device of claim 6 further comprising a transfer system electrically coupling said coupler output conductor to said amplifier input, said transfer system having an oblong input conductor of a selected input length provided on said operating major surface of said semiconductor substrate electrically coupled substantially on said operating major surface at one end thereof to said coupler output conductor but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface, and having an oblong output conductor of a selected output length provided on said operating major surface of said semiconductor substrate electrically coupled substantially on said operating major surface at one end thereof to said amplifier input but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface, and wherein said transfer system input conductor has a continuous portion thereof on said operating major surface electrically coupled at one end thereof to said coupler output conductor and has at an opposite end thereof, and connected thereto, an input extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable, and wherein said transfer system output conductor has a continuous portion thereof on said operating major surface electrically coupled at one end thereof to said amplifier input and has at an opposite end thereof, and connected thereto, an output extension comprising a sequence of conductive pads on said operating major surface interconnected by an elevated conductor having portions between said conductive pads that are relatively easily removable.

14. (Currently amended) The device of claim [[8]] 32 wherein said capacitor is formed by a varactor having a conductor connected thereto through which a low frequency voltage can be further provided across a semiconductor material junction in said varactor.

15. (Original) The device of claim 11 wherein said transistor is a pseudomorphic high electron mobility transistor.

16. (Currently amended) The device of claim 13 further comprising a capacitor used in electrically coupling said transfer system output conductor to said amplifier input.

17. (Original) The device of claim 16 wherein said capacitor is formed by a varactor having a conductor connected thereto through which a low frequency voltage can be further provided across a semiconductor material junction in said varactor.

18. (Currently amended) A feedback oscillator device formed with an integrated circuit, said device comprising:

a semiconductor material substrate having a conductive ground plane on an equipotential major surface thereof on a side opposite an operating major surface thereof;

an amplifier formed at least in part in said semiconductor material having an input and an output provided at least in part on said semiconductor material substrate at said operating major surface thereof, said amplifier being capable of providing signals at said output thereof representative of signals occurring at said input thereof; and

a transfer system having an oblong input conductor of a selected input length provided on said operating major surface of said semiconductor substrate electrically coupled substantially on said operating major surface at one end thereof to said amplifier output but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface, and having an oblong output conductor of a selected output length provided on said operating major surface of said semiconductor substrate electrically

coupled substantially on said operating major surface at one end thereof to said amplifier input but free of other connections on [[said]] an opposite end thereof to other structures on said operating major surface, said input conductor being spaced apart from said output conductor sufficiently to avoid any substantial electromagnetic coupling therebetween at said operating major surface.

19. (Original) The device of claim 18 wherein said semiconductor material substrate is formed of gallium arsenide.

20. (Currently amended) The device of claim 18 further comprising a capacitor used in electrically coupling said transfer system output conductor to said amplifier input.

21. (Currently amended) The device of claim 19 wherein said amplifier comprises a transistor formed at least in part in said semiconductor material and having first and second terminating regions and having a control region therein by which it is capable of being directed, by electrical energization thereof, to effectively provide a conductive path of a selected conductivity between said first and second terminating regions, a selected one of said first and second terminating regions being coupled to said amplifier output and said control region being coupled to said amplifier input.

22. (Original) The device of claim 20 wherein said capacitor and said transfer system have a circuit portion in series therewith having an impedance therein dependant on frequency exhibiting an extreme impedance value at a resonant frequency.

23. (Currently amended) The device of claim 21 wherein ~~said transistor where~~ that remaining one of said first and second terminating regions has an inductance coupled therefrom to said conductive ground plane.

24. (Original) The device of claim 22 wherein said capacitor is formed by a varactor having a conductor connected thereto through which a low frequency voltage can be further provided across a semiconductor material junction in said varactor.

25. (New) The device of claim 1 wherein said coupler output conductor is coupled at one end thereof to said amplifier input without a conductor extending as a connector between them on said operator major surface.

26. (New) The device of claim 1 wherein said coupler input conductor coupled at one end thereof to said amplifier output is free of other connections on an opposite end thereof.

27. (New) The device of claim 1 wherein said selected input length and said selected output length are each a quarter of that wavelength associated with a desired frequency of magnitude oscillation of a signal in said oscillator device.

28. (New) The device of claim 4 wherein said transfer system input conductor is spaced apart from said transfer system output conductor sufficiently to avoid any substantial electromagnetic coupling therebetween at said operating major surface.

29. (New) The device of claim 4 wherein said coupler input conductor coupled at one end thereof to said amplifier output is free of other connections on an opposite end thereof.

30. (New) The device of claim 4 wherein said selected input and output lengths of said coupler input and output conductors, and said selected input and output lengths of said transfer system input and output conductors, are each a quarter of that wavelength associated with a desired frequency of magnitude oscillation of a signal in said oscillator device.

31. (New) The device of claim 8 wherein said capacitor and said transfer system have a circuit portion in series therewith having an impedance therein dependant on frequency exhibiting an extreme impedance value at a resonant frequency.

32. (New) The device of claim 18 wherein said coupler output conductor is coupled at one end thereof to said amplifier input without a conductor extending as a connector between them on said operator major surface.

33. (New) The device of claim 18 wherein said coupler input conductor coupled at one end thereof to said amplifier output is free of other connections on an opposite end thereof.

34. (New) The device of claim 18 wherein said selected input length and said selected output length are each a quarter of that wavelength associated with a desired frequency of magnitude oscillation of a signal in said oscillator device.

35. (New) The device of claim 21 wherein said transistor is a high electron mobility transistor.

36. (New) The device of claim 31 wherein said transfer system input conductor is spaced apart from said transfer system output conductor sufficiently to avoid any substantial electromagnetic coupling therebetween at said operating major surface, and wherein said selected input and output lengths of said coupler input and output conductors, and said selected input and output lengths of said transfer system input and output conductors, are each a quarter of that wavelength associated with a desired frequency of magnitude oscillation of a signal in said oscillator device.

37. (New) The device of claim 35 wherein said transistor is a pseudomorphic high electron mobility transistor.